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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,719	08/08/2003	Robert H. J. Miro	COO-15	3528

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DOYLE B. JOHNSON, ESQ.
REED SMITH, LLP
TWO EMBARCADERO CENTER, SUITE 200
SAN FRANCISCO, CA 94111

EXAMINER

VANATTA, AMY B

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/637,719	Applicant(s) MIROS ET AL.	
	Examiner Amy B. Vanatta	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2003.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-16 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10, line 3, is indefinite in reciting "the garment", since a first garment and a second garment were previously set forth. It is unclear whether "the garment" as recited in line 3 is referring to the first garment or the second garment.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 7-11, 14, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Wagner (US 4,964,282).

Wagner discloses air conditioned apparel comprising a heat exchanger (tubular members 5 and 6) worn in close proximity to a portion of the body, a garment (1) which covers the heat exchanger, and a multiplicity of anchors (23; col. 3, lines 62-66) that

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couple the heat exchanger and the garment at a multiplicity of anchor locations. The heat exchanger circulates a heat exchanger fluid as in claim 7 (col. 4, lines 39-47). The apparel includes a portion covering a first portion of the body (i.e. the front of the torso) with a first heat exchanger (see the front panel with heat exchanger 5; Fig. 1) and the apparel includes a second heat exchanger (6) worn in close proximity to a second portion of the body (i.e. the back of the torso), as in claims 8 and 14. The garment (1) covers the first (5) and second (6) heat exchangers, as in claim 9, and includes an anchor (23) coupling the garment and the second heat exchanger as claimed.

Regarding claim 10, the front panel of the vest forms the claimed "first garment" and the rear panel of the vest forms the claimed "second garment" (see Fig. 1). Regarding claim 11, the apparel is adapted to circulate heat exchange fluid serially through the first heat exchanger (5) and then through the second heat exchanger (6) as claimed (col. 4, lines 39-47). Regarding claim 16, the anchors (23) are disclosed as hook and loop fasteners (24,25; col. 3, line 62 through col. 4, line 12).

5. Claims 1-4 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Faghri (US 5,269,369).

Faghri discloses apparel for temperature regulation comprising a heat exchanger (pipes 12) worn in close proximity to a portion of the body, a garment (10) which covers the heat exchanger, and a multiplicity of anchors (38; see Fig. 9) that couple the heat exchanger and the garment at a multiplicity of anchor locations (col. 3, lines 50-53; col. 7, lines 31-38). The garment in the embodiment of Fig. 1 includes a garment opening

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and closing mechanism comprising closure device 40 which is disclosed as zippers, as in claims 2-4 (col. 7, lines 50-51). The edge of the garment along which the zippers 40 extend form a periphery (Fig. 1); thus, the zippers are "affixed about a portion of a perimeter of the garment" as in claim 4. The heat exchanger circulates a heat exchanger fluid (30; col. 6, line 65) as in claim 7. The apparel includes a first portion with a first heat exchanger (see, e.g., the torso portion in Figs. 1-4) and a second portion with a second heat exchanger (see, e.g., the head portion shown in Figs. 1-4), as in claims 8-9 and 14-15. The hood shown in Figs. 1-4 forms a "second garment" covering the second heat exchanger, as in claim 10, and includes anchors (38) as in claim 10. Regarding claim 11, the apparel is adapted to circulate heat exchange fluid serially through the first heat exchanger and then through the second heat exchanger as claimed (see Fig. 1, showing the pipes 12 which extend through the torso portion and then into the head portion; col. 2, lines 41-65 and col. 3, lines 4-11). Regarding claim 12, the first and second heat exchangers are adapted to circulate heat exchange fluid separately (col. 3, lines 35-49; also see Fig. 4 and col. 9, lines 36-58). Regarding claim 13, the flow director 42c, 42e, and/or 42h (Fig. 4 and col. 9, lines 36-38) adjustably directs heat exchange fluid into the first and second heat exchangers "separately or serially", to the extent claimed (see adjustable flow director 42c having pump 50 and see pipes in Fig. 4 which direct fluid serially and separately; col. 9, lines 36-58). Regarding claim 16, the anchors 38 are disclosed as hook and loop fasteners (col. 3, lines 50-53 and Fig. 9).

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6. Claims 1, 7-11, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Pirkle (US 5,533,354).

Pirkle discloses apparel comprising a heat exchanger (31) worn in close proximity to a portion of the body, a garment (40) which covers the heat exchanger, and a multiplicity of anchors (stitches as shown in Fig. 7; col. 2, lines 24-25 and col. 4, lines 9-16) that couple the heat exchanger and the garment at a multiplicity of anchor locations (i.e. at the location of each stitch). The heat exchanger circulates a fluid as in claim 7 (col. 3, lines 52-54 and col. 4, lines 17-18). The apparel includes a portion covering a first portion of the body (i.e. the torso) with a first heat exchanger (see the lower portion of tubes 30a, 30b which cover the torso; Fig. 4) and the apparel includes a second heat exchanger (upper portion of tubes 30a,30b which covers the head; Fig. 4) worn in close proximity to a second portion of the body (i.e. the head), as in claims 8 and 14-15. The garment covers the first and second heat exchangers and includes anchors as in claim 9 (Fig. 4). The torso portion (41) forms a first garment which covers the first heat exchanger and the hood (42) forms a second garment which covers the second heat exchanger, as in claim 10. Regarding claim 11, the apparel is adapted to circulate heat exchange fluid serially through the first heat exchanger and then through the second heat exchanger as claimed (see tubes 30a,30b; Fig. 4).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pirkle (US 5,533,354) in view of Schulz (US 2,413,386).

Pirkle discloses apparel as claimed, including a torso covering portion and a hood portion (see Fig. 4). Pirkle does not disclose the details of the garment shown in Fig. 4, and thus it is unclear whether the garment includes opening and closing mechanisms or adjustment mechanisms. Schulz discloses a garment including a heat exchanger. The garment of Schulz has a torso portion and a hood portion. The torso portion includes an opening at the front with an opening and closing mechanism (21), which Schulz discloses may be a zipper ("slide fastener" disclosed in col. 2, lines 24-25 and illustrated in Fig. 2), such as in claims 2-4. The front opening of the garment forms a portion of the perimeter of the garment, and the zipper is affixed about this portion of the perimeter as in claim 4. Garments conventionally have fasteners along a front opening thereof in order to permit easier donning of the garment while allowing closure of the garment after donning. The garment of Pirkle does have a front opening, as shown in Fig. 4. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the garment of Pirkle with a zipper along the front opening, such as shown by Schulz, in order to permit closing of the garment after donning, for greater comfort and insulation of the wearer.

Regarding claims 5-6, Schulz shows an adjustment mechanism affixed to the garment; see gathered bottom 24. The gathered bottom 24 slows the escape of the

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cool air from the interior of the garment. This gathered bottom and the front zipper function to provide a micro-climate for the body as in claim 5. Although Schulz does not specifically disclose that the gathered bottom is an elastic band, it appears to be an elastic band as illustrated in Figs. 2-3, and elastic bands are conventional means to form gathered bottoms of garments. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the bottom of the garment of Pirkle (see Fig. 4) with an elastic band in order to form a gathered bottom which slows the escape of the cooled air out of the bottom of the garment, such as shown by Schulz.

Conclusion

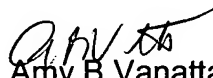
9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy B. Vanatta whose telephone number is 571-272-4995. The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on 571-272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Amy B Vanatta
Primary Examiner
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